



HUMBOLDT COMMUNITY SERVICES DISTRICT

2013 Consumer Confidence Report

Water System Name: Humboldt Community Services District Report Date: April 15, 2014

We test the drinking water quality for many constituents as required by state and federal regulations. This report shows the results of our monitoring for the period of January 1 - December 31, 2013 and may include earlier monitoring data.

Este informe contiene información muy importante sobre su agua potable. Tradúzcalo ó hable con alguien que lo entienda bien.

Type of water source(s) in use: Groundwater

Name & general location of source(s): Mad River & Humboldt Hill Wells
1/3 from 3 deep wells and 2/3 purchased from Humboldt Bay Municipal Water District originating in Ranney Wells within the bed of the Mad River.

Time and place of regularly scheduled board meetings for public participation: The HCSD Board of Directors meet on the second and fourth Tuesdays of each month at 5:00 p.m. at our offices located at 5055 Walnut Drive in Cutten.

For more information, contact: David Hull, General Manager Phone: (707) 443-4550

TERMS USED IN THIS REPORT

Maximum Contaminant Level (MCL): The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the PHGs (or MCLGs) as is economically and technologically feasible. Secondary MCLs are set to protect the odor, taste, and appearance of drinking water.

Maximum Contaminant Level Goal (MCLG): The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs are set by the U.S. Environmental Protection Agency (USEPA).

Public Health Goal (PHG): The level of a contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by the California Environmental Protection Agency.

Maximum Residual Disinfectant Level (MRDL): The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

Maximum Residual Disinfectant Level Goal (MRDLG): The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

Primary Drinking Water Standards (PDWS): MCLs and MRDLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.

Secondary Drinking Water Standards (SDWS): MCLs for contaminants that affect taste, odor, or appearance of the drinking water. Contaminants with SDWSs do not affect the health at the MCL levels.

Treatment Technique (TT): A required process intended to reduce the level of a contaminant in drinking water.

Regulatory Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

Variances and Exemptions: Department permission to exceed an MCL or not comply with a treatment technique under certain conditions.

ND: not detectable at testing limit

ppm: parts per million or milligrams per liter (mg/L)

ppb: parts per billion or micrograms per liter (µg/L)

ppt: parts per trillion or nanograms per liter (ng/L)

ppq: parts per quadrillion or picogram per liter (pg/L)

pCi/L: picocuries per liter (a measure of radiation)

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in source water include:

- *Microbial contaminants*, such as viruses and bacteria, that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- *Inorganic contaminants*, such as salts and metals, that can be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- *Pesticides and herbicides*, that may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.
- *Organic chemical contaminants*, including synthetic and volatile organic chemicals, that are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, agricultural application, and septic systems.
- *Radioactive contaminants*, that can be naturally-occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, the USEPA and the California Department of Public Health (Department) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. Department regulations also establish limits for contaminants in bottled water that provide the same protection for public health.

Tables 1, 2, 3, 4, 5, and 6 list all of the drinking water contaminants that were detected during the most recent sampling for the constituent. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. The Department allows us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of the data, though representative of the water quality, are more than one year old. Results in line with HBMWD indicate detection within with municipal water system. Results in line with HCSD indicate level detected at the HCSD Well locations.

TABLE 1 – SAMPLING RESULTS SHOWING THE DETECTION OF COLIFORM BACTERIA

Microbiological Contaminants (complete if bacteria detected)	Highest No. of Detections	No. of months in violation	MCL	MCLG	Typical Source of Bacteria
Total Coliform Bacteria	None	-0-	More than 1 sample in a month with a detection	0	Naturally present in the environment
Fecal Coliform or <i>E. coli</i>	None	-0-	A routine sample and a repeat sample detect total coliform and either sample also detects fecal coliform or <i>E. coli</i>	0	Human and animal fecal waste

TABLE 2 – SAMPLING RESULTS SHOWING THE DETECTION OF LEAD AND COPPER

Lead and Copper (complete if lead or copper detected in the last sample set)	Sample Date	No. of samples collected	90 th percentile level detected	No. sites exceeding AL	AL	PHG	Typical Source of Contaminant
Copper (ppm)							
HBMWD	2011	5	0.965 mg/L	None			Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
HCSD	2013	31	1.2	2 at & 2 above	1.3	0.3	
Lead (ppb)							
HBMWD	2011	5	8 ug/L	None			Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
HCSD	2013	31	3.5	None	15	.0002	

TABLE 3 – SAMPLING RESULTS FOR SODIUM AND HARDNESS

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL	PHG (MCLG)	Typical Source of Contaminant
Sodium (ppm) HBMWD HCSD	2007 2006	3.6 15.5 avg	12-19	none	none	Salt present in the water and is generally naturally occurring
Hardness (ppm) HBMWD HCSD	2007 2009	68 mg 55 avg	53-57	none	none	Sum of polyvalent cations present in the water, generally magnesium and calcium, and are usually naturally occurring
pH HCSD	2010	7.6 avg	7.4-7.8			

*Any violation of an MCL or AL is asterisked. Additional information regarding the violation is provided later in this report.

TABLE 4 – DETECTION OF CONTAMINANTS WITH A PRIMARY DRINKING WATER STANDARD

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL [MRDL]	PHG (MCLG) [MRDLG]	Typical Source of Contaminant
INORGANIC CONTAMINANTS						
Aluminum (ppm) HBMWD HCSD	2006 2009	.16 .0042 avg	ND-0.0084	1	0.6	Erosion of natural deposits; residue from some surface water treatment processes
Antimony (ppb) HCSD	2009	.65 avg	ND-1.3	6	.02	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder
Arsenic (ppb) HCSD	2009	2.75 avg	ND-5.5	10	0.000004	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
Barium (ppm) HCSD	2009	.0079 avg	.0038-.0120	1	2	Discharges of oil drilling wastes and from metal refineries; erosion of natural deposits
Chromium (ppb) HBMWD HCSD	2013 2009	.03 .6 avg	0.18-0.23 ug/L ND-1.2	50	N/A	Discharge from steel and pulp mills and chrome plating ; erosion of natural deposits
Fluoride (ppm) HCSD	2009	.185 avg	.16-.22	2	1	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories
DISINFECTION BYPRODUCTS, DISINFECTION BYPRODUCT PRECURSORS, AND DISINFECTANT RESIDUALS						
Total trihalomethanes (TTHM) (ppb) HBMWD HCSD	2013 2013	6.6 8.6 avg	3.3-14	80	.0008	Byproduct of drinking water disinfection
Haloacetic acids (five) (HAA5) (ppb) HBMWD HCSD	2013 2013	ND 1.5 avg	ND-3	60	N/A	Byproduct of drinking water disinfection
Chlorine (ppm) HBMWD HCSD	2013 2013	.67 mg/L .55 avg	.1-1.2	N/A	N/A	Drinking water disinfectant added for treatment

TABLE 5 – DETECTION OF CONTAMINANTS WITH A SECONDARY DRINKING WATER STANDARD

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL	PHG (MCLG)	Typical Source of Contaminant
Aluminum (ppb)	HBMWD 2006	0.16 mg/L		200	N/A	Erosion of natural deposits; residual from some surface water treatment processes
	HCSO 2009	4.2 avg	ND-8.4			
Iron (ppb)	HCSO 2007	27.5 avg	17-38	300	N/A	Leaching from natural deposits; industrial wastes
Manganese (ppb)	HCSO 2007	15.2 avg	6.4-24	50	N/A	Leaching from natural deposits
Turbidity (NTU)	HBMWD 2013	0.07 avg	0.03-0.15	5 NTU	N/A	Soil runoff
	HCSO 2007	1.3 avg	ND-2.6			
Total dissolved solids (ppm)	HBMWD 2007	93 avg		1,000	N/A	Runoff/leaching from natural deposits
	HCSO 2010	175 avg	100-230			
Specific Conductance (uS/cm)	HBMWD 2013	140 avg		1,600	N/A	Substances that form ions when in water; seawater influence
	HCSO 2011	185 avg	160-210			
Chloride (ppm)	HBMWD 2007	2.8 avg		500	N/A	Runoff/leaching from natural deposits; seawater influence
	HCSO 2007	36.5 avg	13-60			
Sulfate (ppm)	HBMWD 2007	9.5 avg		500	N/A	Runoff/leaching from natural deposits; industrial wastes
	HCSO 2007	8 avg	5-11			

There have been three cycles of monitoring: UCMR 1 (2001-2003), UCMR 2 (2008-2010), and UCMR 3 (2013-2015). The table below reflects 2013 reports of five constituent results indicating levels above the minimum reporting levels, but well below notification level.

TABLE 6 – DETECTION OF UNREGULATED CONTAMINANTS

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	Notification Level	Health Effects Language
Chlorate (ppb)	HBMWD 2009/2010 2013/2014	Not Detected 126.5 avg		800	None
Chromium (Total) (ppb)	HBMWD 2013 2009/2010 2013/2014	→ 1.75 avg	0.20-0.39 ug/L 1.5-2.0	50	Some people who use water containing chromium in excess of the MCL over many years may experience allergic dermatitis.
Chromium 6+ (ppb)	HBMWD 2013 HCSO 2013	→ Not Detected	0.18-0.23 ug/L	10 ug/L (not yet adopted)	Naturally occurring from geological formations, also from manufacturing of textile dyes, wood preservation, leather tanning, and anti-corrosion coatings.
Hexavalent Chromium (ppb)	HBMWD 2013 2009/2010 2013/2014	Not Detected 1.54 avg		N/A	None
Strontium (Total) (ppb)	HBMWD 2013 2009/2010 2013/2014	→ 83 avg	240-310 ug/L 36-130	N/A	None
Vanadium (Total) (ppb)	HBMWD 2013 HCSO 2009/2010 2013/2014	→ 3.3 avg	0.38-0.5 ug/L 2.8-3.8	50	The babies of some pregnant women who drink water-containing vanadium in excess of the notification level may have an increased risk of developmental effects, based on studies in laboratory animals.

Additional General Information on Drinking Water

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the USEPA's Safe Drinking Water Hotline (1-800-426-4791).

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. USEPA/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).

While your drinking water meets the federal and state standard from arsenic, it does contain low levels of arsenic. The arsenic standard balances the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water. The U.S. Environmental Protection Agency continues to research the health effects of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems.

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. Humboldt Community Services District is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at <http://www.epa.gov/safewater/lead>.

Water Conservation Tips for Consumers

Did you know that the average U.S. household uses approximately 400 gallons of water per day or 100 gallons per person per day? Luckily, there are many low-cost and no-cost ways to conserve water. Small changes can make a big difference – try one today and soon it will become second nature.

- Take short showers – a 5 minutes shower uses 4 to 5 gallons of water compared to up to 50 gallons for a bath.
- Shut off water while brushing your teeth, washing your hair and shaving and save up to 500 gallons a month.
- Use a water-efficient showerhead. They are inexpensive, easy to install, and can save you up to 7 gallons a month.
- Use a water-efficient showerhead. They are inexpensive, easy to install, and can save you up to 750 gallons a month.
- Run your clothes washer and dishwasher only when they are full. You can save up to 1,000 gallons a month.
- Water plants only when necessary.
- Fix leaking toilets and faucets. Faucet washers are inexpensive and take only a few minutes to replace. To check your toilet for a leak, place a few drops of food coloring in the tank and wait. If it seeps into the toilet bowl without flushing, you have a leak. Fixing it or replacing it with a new, more efficient model can save up to 1,000 gallons a month.
- Adjust sprinklers so only your lawn is watered. Apply water only as fast as the soil can absorb it and during the cooler parts of the day to reduce evaporation.
- Teach your kids about water conservation to ensure a future generation that uses water wisely. Make it a family effort to reduce next month's water bill!
- Visit www.epa.gov/watersense for more information.